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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,329	01/22/2002	David G. Wright	0325.00529	4794
21363	7590	12/13/2005	EXAMINER	
CHRISTOPHER P. MAIORANA, P.C.			PAN, YUWEN	
24840 HARPER SUITE 100			ART UNIT	
ST. CLAIR SHORES, MI 48080			PAPER NUMBER	

2682

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/054,329	<b>Applicant(s)</b> WRIGHT ET AL.	
	<b>Examiner</b> Yuwen Pan	<b>Art Unit</b> 2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-20 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

1. Applicant's arguments with respect to claims 1, 14 and 15 have been considered but are moot in view of the new ground(s) of rejection.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 6-8, 10-12, 14-16, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamdi et al (US006408351B1) in view of Okamura (US2001/0021659) and in further view of Young (US00686263B2).

Per claims 1, 14 and 15, Hamdi teaches that an apparatus (see figure 1) comprising: a transceiver circuit (item 114) comprising a plurality of bus input/outputs (I/Os), wherein said transceiver circuit is configured to directly couple a plurality of first digital signals to said bus I/Os when said bus I/Os are in one state (see column 11 and line 42-column 12 and line 7). Hamdi doesn't teach an analog signal to said bus I/Os when said bus I/Os are in another state with a multiplexer circuit. Okamura teaches an analog signal to said bus I/Os when said bus I/Os are in another state with a multiplexer circuit (see abstract, figure 1 and 3, elements 4, 33, 35, 42, and 47, para. 23-34).

It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of Okamura with Hamdi's device such that the analog and digital integrated connector would reduce the size of the portable device.

Furthermore, there is no teaching from both prior art teachings that a signal device comprises two states, an analog state and a digital state. Young discloses a multiplexer circuit that selects the outputs based on the type of signal from the detection of the controller (see figure 3, column 1 and line 65-column 2 and line 4).

It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of Young with the combination of Hamdi and Okamura such that it would reduce the size of device by eliminating an extra device for detecting the type of signal.

Per claims 2 and 16, Hamdi further teaches that said transceiver circuit is further configured to directly couple a plurality of second digital signals to said bus I/Os when said bus I/Os are in a third state (see figure 1 and item 109).

Per claim 3, Hamdi further teaches that said apparatus further comprises a second circuit coupled to said transceiver circuit and configured to present/receive said first and second digital signals (see figure 1 and items 108).

Per claim 6, Hamdi further teaches that said transceiver circuit is configured to determine said state of said bus I/Os (see column 14 and lines 25-46).

Per claim 7, Hamdi further teaches that said second circuit is configured to determine said state of said bus I/Os (see column 13 and lines 31-40).

Per claim 8, it is inherent that said second digital signals are signals selected from a group consisting Inter-IC protocol and Serial Peripheral Interface protocol signals since Hamdi teaches that microprocessor CPUs (see figure 1).

Per claim 10, Hamdi further teaches said transceiver circuit comprises an interface circuit configured to control said coupling in response to said first, second, and third states (see figure 1 and 2, item 118, column 12 and lines 19-37).

Per claim 11, Hamdi further teaches that said first digital signal comprise signals compliant to a USB protocol (see column 13 and lines 10).

Per claim 12, Hamdi further teaches that said apparatus is configured to communicate said first, second and third states between said transceiver circuit and said second circuit via one or more of said plurality of second digital signals (see figure 1).

Per claim 22, Young further teaches that multiplexer circuit presents/receives one of said analog output signal, said first digital signals and said second digital signals in response to said control signal (see figure 3).

4. Claims 5 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamdi et al (US006408351B1), Young (US006862636B2) and Okamura (US2001/0021659) and in further view of online publication (USB OTG).

Hamdi discloses an analogous art as recited in claim 1. Hamdi doesn't teach that said bus I/Os and said first digital signals are compliant with a USB OTG protocol. Online publication teaches that a new supplement to USB 2.0 specification has been finalized in December 2001, called USB OTG. It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of USB OTG with Hamdi's device such that it connects dural-role device without having individual driver for each device on the Peripheral list.

5. Claims 4, 13, 17, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamdi et al (US006408351B1), Young (US006862636B2) and Okamura (US2001/0021659) in further view of applicant admitted prior art (hereinafter, AAPA).

Hamdi discloses an analogous art ask recited in claims 1-3. Hamdi further teaches that the analog signal comprises an audio signal (see column 13 and lines 16-30). Hamdi doesn't teach that said transceiver circuit comprises a cellular telephone transceiver circuit; said second circuit comprises a cellular telephone application specific integrated circuit (ASIC); and said bus I/Os comprise a cellular telephone interconnect. AAPA teaches that said transceiver circuit comprises a cellular telephone transceiver circuit; said second circuit comprises a cellular telephone application specific integrated circuit (ASIC); and said bus I/Os comprise a cellular telephone interconnect (see specification, page 2 and 3). It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of AAPA

with Hamdi's device such that the users increase their mobility with these portable computer device.

*Conclusion*

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuwen Pan whose telephone number is 571-272-7855. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2682

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Yuwen Pan  
November 29, 2005

  
LEE NGUYEN  
PRIMARY EXAMINER